



Excellence in Compliance Testing

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## **Certification Exhibit**

**FCC ID: R7PNG6R2S4  
IC: 5294A-NG6R2S4**

**FCC Rule Part: 15.247  
IC Radio Standards Specification: RSS-210**

**ACS Project Number: 11-0448**

**Manufacturer: Cellnet Technology, Inc.  
Model: Mesh Extender R240**

## **RF Exposure**

**General Information:**

Applicant: Cellnet Technologies Inc.  
 Device Category: Mobile  
 Environment: General Population/Uncontrolled Exposure

**Technical Information:**

Antenna Type: Omni-directional collinear whip antenna  
 Antenna Gain: +5.5 dBi  
 Maximum Transmitter Conducted Power: 29.81 dBm, 957.2 mW  
 Maximum System EIRP: 35.31 dBm, 3.396 W  
 Exposure Conditions: Greater than 20 centimeters

**MPE Calculation**

The Power Density (mW/cm<sup>2</sup>) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:

- S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)
- P = power input to the antenna (in appropriate units, e.g., mW)
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	Radio Power (dBm)	Power Density Limit (mW/Cm2)	Radio Power (mW)	Antenna Gain (dBi)	Antenna Gain (mW eq.)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )
927.9	29.81	0.62	957.19	5.5	3.548	22	0.558

**Installation Guidelines**

The installation manual should contain text similar to the following advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

**RF Exposure**

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 22 centimeters will be maintained.

**Conclusion**

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.